LeConte's Thrasher (Toxostoma lecontei)

Species Status Statement

Distribution

The range of LeConte's thrasher is restricted to California's San Joaquin Valley, and in the Mojave, Colorado, and Sonoran desert portions of California, Nevada, Utah, Arizona, Baja California, and Sonora (Sheppard 2019). LeConte's thrasher is nonmigratory and resides within its breeding territory year-round. Few records exist of this bird outside of its range.

Records from Utah (1927-2018) are restricted to Washington County. Verified reports exist only along Beaver Dam Slope areas of Beaver Dam National Conservation Area, with few additional, unverified reports in Beaver Dam Wash, St. George, Snow Canyon, and Zion National Park (Utah Birds, eBird).

Table 1. Utah counties currently occupied by this species (eBird and Utah NHP)

LeConte's Thrasher	
WASHINGTON	

Abundance and Trends

The global population size estimate of LeConte's thrashers is 71,000, with roughly 65% living in the United States (Partners in Flight 2019a). Breeding Bird Survey (BBS) data show non-significant range-wide LeConte's thrasher declines of 1.99% per year (95% CI: -3.9 to 0.1; Sauer et al. 2017) and an overall population loss of 67% from 1967 to 2015 (Rosenberg 2016). At the current estimated rate of decline, LeConte's thrasher populations will decline by another 50% in 27 years (Partners in Flight 2019b).

Similar trends have been detected in both California and Arizona (Sauer et al. 2017). However due to the scarcity of the thrashers, surveys in all regions have very low detectability and limited predictive power (Sauer et al. 2017). LeConte's thrasher has not been detected on Breeding Bird Surveys within Utah, and no population trends exist for the state (Sauer et al. 2017). The overall Utah population is estimated to be 29 individuals (Partners in Flight 2019a). LeConte's thrasher has not been confirmed in Utah since 2005, except for an unconfirmed report from Welcome Springs in 2006 (Utah Birds).

Currently LeConte's thrasher is:

 Identified by the U.S. Fish and Wildlife Service as a priority species at the continental and Bird Conservation Region scales on the Birds of Conservation Concern list (USFWS draft 2017)

- Listed by Partners in Flight as "RECOVER: Red Watch List Species with extremely high vulnerability due to small population and range, high threats, and range-wide declines" (Rosenberg et al. 2016, Partners in Flight 2019a)
- Listed as a Species of Special Concern in California, as state level "Imperiled (S2)" in Nevada, and as a Species of Greater Conservation Need in Arizona

Statement of Habitat Needs and Threats to the Species

Habitat Needs

Throughout its range, LeConte's thrasher is patchily distributed within apparently suitable habitat. Where they do occur, thrashers inhabit sparsely vegetated flats, dunes, alluvial fans, or gently rolling hills (Sheppard 2019). Annual precipitation in these areas ranges from 4 to 6 cm per year and temperatures range greatly from -4 to 130°F (Sheppard 2019). Typical vegetation includes saltbush, shadscale, cholla cactus, and occasionally Joshua trees in patches less than 50 feet wide and usually less than 8 feet tall (Sheppard 2019, Grinnell and Miller 1944). A few patches of dense shrubs are necessary for roosting and for nest placement. LeConte's thrasher is rarely found in creosote- or *Bromus*-dominated landscapes.

Individuals spend most of their time perching high in shrubs, or foraging hear the ground. These thrashers feed mostly on insects, and forage for them by either digging in the substrate below and between vegetation patches, or to a lesser degree by gleaning them from vegetation.

Unlike other species of desert thrashers which prefer continuous vegetative cover, LeConte's require large patches of undisturbed bare substrate, sparse grasses, and leaf litter to dig and find insect prey (Sheppard 2019). Overall, home range sizes of this thrasher range from 3.5 to 18 ha (Sheppard 2019). LeConte's thrasher is known in Utah from a very limited area in Washington County. The Beaver Dam Slope area encompasses the majority of the Mojave Desert in southwest Utah.

Threats to the Species

Little is known about what factors affect thrasher distribution, abundance, and trends. In general, availability of suitable habitat is the major driver of occupancy (Sheppard 2016). In urbanizing portions of its range, irrigation for lawns and agricultural fields and urban development have converted native desert vegetation into crops, lawns, and towns which are unsuitable for the thrasher (Laudenslayer et al. 1992). LeConte's thrasher also requires undisturbed substrate amongst native desert vegetation for foraging. Grazing and OHVs threaten these undisturbed foraging areas by compacting soil, reducing litter accumulation, and reducing shrub densities needed for nesting (Sheppard 2016, Bury et al. 1977).

Fire also reduces suitable habitat for LeConte's thrasher (Sheppard 2016, E. Juarez, AZ Game & Fish Dept., Pers. Comm.). Due to extreme aridity and the lack of continuous native fuels, fire is not a natural disturbance agent in LeConte's thrasher habitat. Fire can kill native shrubs and

grasses, as well as dormant seeds in the soil, because no native plants in thrasher range are fire-adapted. Post-fire landscapes are often fragmented, and the thick shrubs needed for nesting are eliminated. Fire may convert sparse native shrublands into non-native grassland with non-native annuals that may permanently exacerbate short fire-return intervals. Non-native grasslands are not favorable for thrashers, and are additionally more prone to runoff. Increased surface runoff limits germination of native plants and decreases litter accumulation which the thrashers need to forage.

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

Le Conte's Thrasher	
High	
Inappropriate Fire Frequency and Intensity	
Medium	
Invasive Plant Species – Non-native	

Rationale for Designation

As noted above, LeConte's thrasher is naturally very rare in Utah, and is uncommon throughout its range. This thrasher depends on intact, sparse desert to survive. In order to maintain the current populations, the protection of these landscapes need to the continued and improved. Designating LeConte's thrasher as a Sensitive Species will facilitate local research leading to more accurate accounts of the species occupancy in Utah and the development of more robust management guidelines.

Economic Impacts of Sensitive Species Designation

Similar to Bendire's thrasher, Sensitive Species designation is intended to facilitate research on, and management of, this rare species. Both are needed to reverse the slide toward Endangered Species Act Listing and the related economic impacts. An ESA listing of LeConte's thrasher could affect infrastructure and development projects in the greater St. George region.

Literature Cited

Bury, R.B., R.A. Luchenbach, and S.D. Busack. 1977. Effects of off-road vehicles on vertebrates in the California desert. US Fish and Wildlife Service Wildlife Research Report. 8:1-23.

eBird. Basic Dataset. Version: EBC_relMay2018. Cornell Lab of Ornithology, Ithaca, New York, USA. May 2018.

Grinnell, J. and A.H. Miller. 1944. The distribution of the birds of California. Pacific Coast Avifauna 27.

Laudenslayer, Jr., W.F., A.S. England, S. Fitton and L. Saslaw. 1992. The Toxostoma thrashers of California: species at risk. Transactions of the Western Section of the Wildlife Society. 28:22-29

Partners in Flight. 2019a. Population Estimates Database, version 3.0. Available at http://pif.birdconservancy.org/PopEstimates.

Partners in Flight. 2019b. Avian Conservation Assessment Database, version 2019. Available at http://pif.birdconservancy.org/ACAD.

Rosenberg, K.V., J.A. Kennedy, R. Dettmers, R.P. Ford, D. Reynolds, J.D. Alexander, C.J. Beardmore, P.J. Blancher, R.E. Bogart, G.S. Butcher, A.F. Canfield, A. Couturier, D.W. Demarest, W.E. Easton, J.J. Giocomo, R.H. Keller, A.E. Mini, A.O. Panjabi, D.N. Pashley, T.D. Rich, J.M Ruth, H. Stabins, J. Stanton, and T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 revision of Canada and continental United States. Partners in Flight Science Committee. 119 pp.

Salafsky, N., D. Salzer, A.J. Stattersfield, C. Hilton-Taylor, R. Neugarten, S.H.M. Butchart, B. Collen, N. Cox, L.L. Master, S. O'Connor, and D. Wilkie. 2008. A standard lexicon for biodiversity conservation: unified classifications of threats and actions. Conservation Biology 22: 897–911.

Sauer, J.R., D.K. Niven, J.E. Hines, D.J. Ziolkowski, Jr., K.L Pardieck, J.E. Fallon, and W.A. Link. 2017. The North American Breeding Bird Survey, Results and Analysis 1966-2015. Version 2.07.2017 USGS Patuxent Wildlife Research Center, Laurel, Maryland, USA.

Sheppard, J. M. 2019. LeConte's Thrasher (*Toxostoma lecontei*), version 2.0. *In* The Birds of North America (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi-org.dist.lib.usu.edu/10.2173/bna.lecthr.02

U.S. Fish and Wildlife Service [USFWS]. Draft 2017. Birds of Conservation Concern 2017. United States Department of the Interior, U.S. Fish and Wildlife Service, Migratory Birds, Falls Church, Virginia, USA. http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php

Utah Birds. Accessed December 2019. http://www.utahbirds.org/RecCom/RareBirdsArc4.htm#LecontesThrasher

Utah Division of Wildlife Resources [UDWR]. 2015. Utah Wildlife Action Plan: A plan for managing native wildlife species and their habitats to help prevent listings under the Endangered Species Act 2015-2025. Publication Number 15-14, 385 pp.